

TITLE: COVER FOR AN AIR REGISTER

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TECHNICAL FIELD

The present invention pertains generally to forced air systems which deliver air to
10 interior spaces through air registers or vents, and in particular to a cover which removably
attaches to the air register, and which contains a replaceable scented pad.

BACKGROUND ART

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Devices relating to air registers and various attachments thereto, and devices for
treating air are well known in the art. For example, U.S. Patent 1,496,326 shows an air
purifier which consists of a deodorant holder which can be hung upon a wall, for instance
in a clothes closet. U.S. Patent 4,903,584 illustrates a deodorizing air vent attachment.

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The device comprises a vent fitting mounting surface and a deodorant holding region
supported by the mounting surface. The deodorant holding region is itself ventilated for
air dispersal of the deodorant supported in the holding region. U.S. Patent 5,240,487
defines a warm air register filter and scent dispenser. A frame carries a variable flow
scent dispenser and supports an air filter. The frame, dispenser and filter are inserted as a

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unit into a forced air heating and/or cooling system duct adjacent to the duct outlet
through a floor or wall register. The scent dispenser is a container for scented air
freshening material and has apertures through opposite walls which are disposed
transversely to the direction of air flow. U.S. Patent 5,240,653 discloses a house freshener
consisting of a basket fitting holding an air filter which is attached directly to the duct
30 covering grill within a room. Various air fresheners and germicidal agents may be

comprises a combination of integrally mixed plastic with a scent substance formed through a manufacturing process that produces a shape for the device which permits it to be removably attached to an air filter. U.S. Patent 5,863,310 illustrates a grill/filter mounting assembly for mounting in the exit or entrance wall opening of a forced air duct wherein the duct plate may be installed in a hinged relation to the duct enabling easy access to the duct opening.

DISCLOSURE OF INVENTION

The present invention is directed to a cover for an air register of an air conditioning, heating, or ventilation system. The cover includes a scented pad which imparts an aroma or therapeutic fragrance to air blowing through the register. The cover may be retrofitted to any existing air register. A preferred name for the present invention is "SCENT-A-VENT".

The retrofitted cover is designed to work with the existing vent registers in a home or office. The cover can be easily attached directly over an existing (floor, wall or ceiling) vent register by using Velcro™, adhesive, or magnets located on the back of the cover. Once attached the scented cartridge can be placed on the sliding scented filter tray and then closed. To maximize affects of the present invention, the ventilation system needs to be activated. A user can enjoy the aromatherapy of the present invention when using heating or air-conditioning in the home or office.

Some of the many advantages of the present invention are:

- The Scent-A-Vent Cover System can easily be attached to a floor, ceiling or wall existing vent register magnetically, with an adhesive or with Velcro™.
- The uniquely shaped scented pad is designed to mirror the slits or openings on the face of the cover. This will allow the air to pass through the present invention without interrupting the normal airflow.
- The scented pad or cartridge can be scented with natural oils used in Aroma Therapy products.
- The scented pad can be reused by utilizing drops or sprays. This will extend the life of the scented pad.
- The scented pad can come in regular and hypoallergenic scents.
- The cover has a sliding tray or drawer for easy access when inserting and removing the scented pad.

- The cover also comes in a retrofitted floor design having beveled edges which helps to prevent tripping when walking by or over the cover.
- The present invention is designed to fit any existing ventilation system's register, commercial or residential. It can easily be installed by simply attaching the unit directly over the existing register.

In accordance with a preferred embodiment of the invention, a cover which can be removably attached to the air register of a ventilation system includes a first frame which has a plurality of spaced-apart columns. A second frame resembling a bottomless drawer or tray is slidably received by the first frame. A scented pad or cartridge is removably insertable into the second frame.

In accordance with an important aspect of the invention, the scented pad also has a plurality of spaced-apart columns which match the pattern of the plurality of columns on the first frame, so that when the scented pad is installed in the second frame, and the second frame is fully inserted into the first frame, the columns of the scented pad align with those of the first frame, thereby minimizing interference with air flow.

In accordance with an important feature of the invention, attachment devices are disposed upon the rear of the cover to permit attachment to the air register.

In accordance with another important aspect of the invention, the second frame may either be entirely removable from the first frame, or the second frame may be captively held by the first frame at an outermost position.

Other features and advantages of the present invention will become apparent from the following detailed description, taken in conjunction with the accompanying drawings, which illustrate, by way of example, the principles of the invention.

BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is a front elevation view of a cover for an air register in accordance with
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FIG. 2 is a top plan view;

FIG. 3 is a side elevation view;

FIG. 4 is an opposite side elevation view;

FIG. 5 is a rear elevation view;

10 FIG. 6 is a front elevation view showing a second frame removed from a first
frame, and a scented pad inserted in the second frame;

FIG. 7 is an exploded perspective view of an air register, the cover including a
first frame, the second frame, and the scented pad;

15 FIG. 8. is a perspective view of the cover of the present invention installed on the
air register;

FIG. 9 is a front elevation view of showing the second frame captively held at an
outermost position by the first frame; and,

FIG. 10 is a perspective view of an embodiment wherein the edges of the cover
are beveled.

MODES FOR CARRYING OUT THE INVENTION

Referring initially to FIGs. 1, 2, 3, 4, 5, and 7, there are illustrated front elevation, top plan, side elevation, opposite side elevation, rear elevation, and exploded perspective view respectively of a cover for an air register in accordance with the present invention, generally designated as 20. Cover 20 includes a first frame 22 having a plurality of spaced-apart first columns 24. In a preferred embodiment first columns 24 are sized and spaced to match the vanes 502 of air register 500 which is mounted in a wall, ceiling, or floor 504. A second frame 26 is slidably received by first frame 22 in drawer-like fashion. A scented pad 28 is removably insertable into second frame 26, and rests upon a ledge 30. Also, in a preferred embodiment, first frame 22, second frame 26, and scented pad 28 have a substantially rectangular shape, and cover 20 is shaped and dimensioned to be placed over and cover air register 500.

Scented pad 28 has a plurality of spaced-apart second columns 32 which are congruent with the plurality of first columns 24 of frame 22. So that, when scented pad 28 is inserted into second frame 26, and second frame 26 is slidably inserted into first frame 22, the plurality of second columns 32 substantially align with the plurality of first columns 24. It may be appreciated that while in the shown embodiment first frame 22 and scented pad 28 each have seven columns, any number of columns may be employed.

Cover 22 has a back side 34 having a plurality of attachment devices 36 for attaching cover 22 to air register 500. Attachment devices 36 may include any one of magnets, adhesive, and hook and loop fasteners.

Referring now to FIG. 6, there is illustrated a front elevation view showing second frame 26 entirely removed from first frame 22, and scented pad 28 inserted in second frame 26.

FIG. 8. is a perspective view of cover 20 of the present invention installed over air register 500.

FIG. 9 is a front elevation view of showing second frame 26 captively held at an outermost position by first frame 22. That is, second frame 26 cannot be totally removed from first frame 22 as was the case in FIG. 6.

FIG. 10 is a perspective view of a second embodiment, generally designated as 120, wherein the edges 40 of cover 20 are beveled. This embodiment is found useful when cover 20 is placed over a floor air register 500, in that it minimizes abrupt contact by people walking on cover 20. Cover 120 also includes a pair of runners 50 which are used to longitudinally engage air register 500, thereby holding cover 120 firmly in place.

10 In terms of construction, in a preferred embodiment the present invention will be fabricated from durable plastics that can undergo hot and cold temperature changes. Also, the present invention may be fabricated in a plurality of sizes and shapes to accommodate any type air register.

15 The preferred embodiments of the invention described herein are exemplary and numerous modifications, dimensional variations, and rearrangements can be readily envisioned to achieve an equivalent result, all of which are intended to be embraced within the scope of the appended claims.